OPERATING & MAINTENANCE MANUAL

Long working life of the hydraulic components and correct use of the hydraulic systems can be assured only when maintenance is performed correctly and at regular intervals.
Filtration products will only be guaranteed if original MP Filtri replacements elements and spares are used.
In order to prevent the filter elements from collapsing due to excessive hydraulic pressure it is essential to use clogging & differential indicators that serve to inform the user of the need to change the cartridge.
Effective contamination control can be assured only by the correct use of clogging indicators.

INSTALLATION

A: Check that the pressure value of the selected filter is higher than the system's maximum operating pressure (the maximum pressure value is shown on the dataplate).

B: Check that the filter body contains the filter cartridge.

C: Check that the operating fluid is compatible with the material of the body, cartridge and seals.

D: Secure the filter using the relevant threaded holes, to rigid brackets.
Rigid installation makes it possible to unscrew the housing without introducing flexing of the hydraulic fittings, limiting any points of stress transfer.

E: Install the filter in an accessible position for correct and trouble-free maintemance and visibility.

F: Start the machine and check for absence of oil leack from the filter and relative fittings.

G: Repeat the visual inspection when the system arrives at the operating temperature of the oil.

MAINTENANCE

A: All maintenance operations must be performed only by suitably trained personnel.

B: The hydraulic system must be depressurised before performing maintenance operations (except for duplex filter).

C: Maintenance must be carried out using suitable tools and containers to collect the fluid contained in the filter body.
Spent fluids must be disposed of in compliance with statutory legislation.

D: Do not use naked flames during maintenance operations.

E: Use the utmost caution in relation to the temperature of the fluid. High temperature can lead to residual pressure with resulting undesirable movements of mechanical parts.

CHANGING THE FILTER ELEMENT

A: The data on which the filter elements are changed must be entered in the machine datasheet.

B: Spare parts installed must be in compliance with the specifications given in the machine operating and maintenance manual.

C: Filter bodies and tools must be thoroughly cleaned prior to each maintenance operation.

D: After having opened the filter to change the filter element, check th condition of the seals and renew them if necessary.
Clean thoroughly before reassembling.

CHANGING THE FILTER ELEMENT IN MPF FILTERS

1
Depressurise the system and clean the filter.

2
Unscrew the screws remove out the cover.

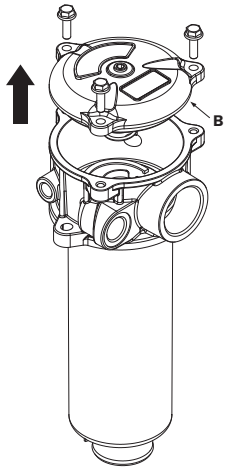


Fig. 1

3
Take out the filter element and bowl using the handle on the filter element.

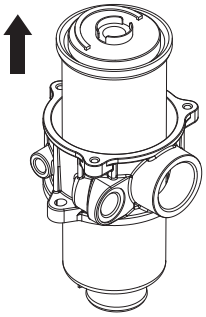


Fig. 2

4
Remove the filter element from the bowl. Collect the spent oil and cartridge in a suitable container and dispose of them in compliance with statutory legislation.

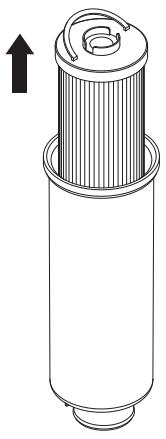


Fig. 3

5
Using the new filter element, lubrificate seal with the operating fluid. Put the filter element into the bowl.

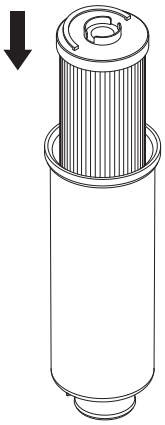


Fig. 4

6
Check the condition of the bowl seal "A" (see Fig. 5): if renewing, lubricate the new seal with the operating fluid before installing.

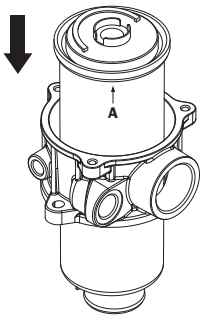


Fig. 5

7
Check the condition of the cover seal "B" (see Fig. 1): if renewing, lubricate the new seal with the operating fluid before installing.

Screw the crews of the cover.

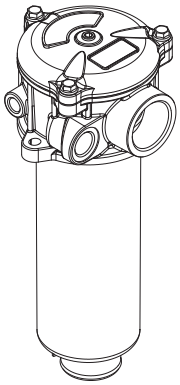


Fig. 6

8
Start the machine and check for the absence of leaks. Repeat the check when the machine has reached its operating temperature.

CHANGING THE FILTER ELEMENT IN MPT FILTERS

1
Depressurise the system and clean the filter.

2
Unscrew the cover.

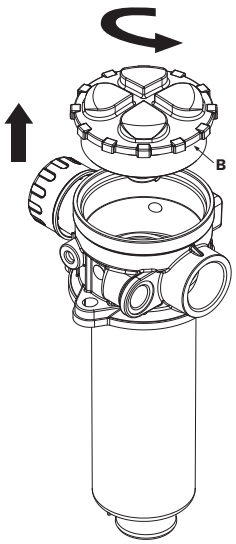


Fig. 1

3
Take out the filter element and bowl using the handle on the filter element.

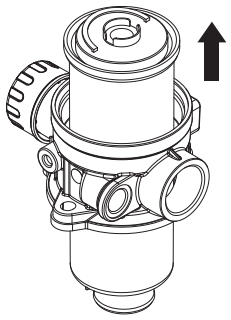


Fig. 2

4
Remove the filter element from the bowl. Collect the spent oil and cartridge in a suitable container and dispose of them in compliance with statutory legislation.

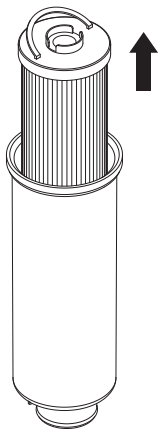


Fig. 3

5
Using the new filter element, lubrificate seal with the operating fluid. Put the filter element into the bowl.

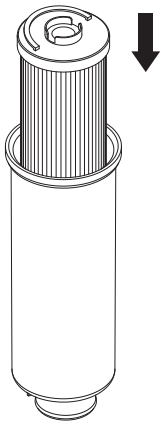


Fig. 4

6
Check the condition of the bowl seal "A" (see Fig. 5): if renewing, lubricate the new seal with the operating fluid before installing.

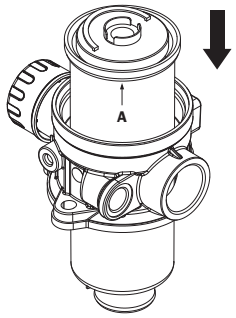


Fig. 5

7
Check the condition of the cover seal "B" (see Fig. 1): if renewing, lubricate the new seal with the operating fluid before installing.

Screw the cover.

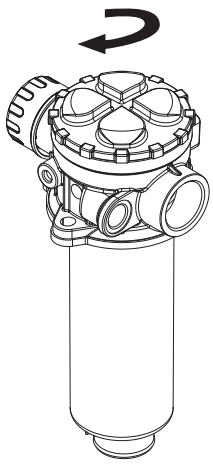


Fig. 6

8
Start the machine and check for the absence of leaks. Repeat the check when the machine has reached its operating temperature.

CHANGING THE FILTER ELEMENT IN MPH - MPI FILTERS

1
Depressurise the system and clean the filter.

Fig. 1 MPH 104 - 110
MPH 114 - 120

2
Unscrew the cover.

Fig. 2 MPH 250 - 630

2
Unscrew the nuts “A” from the pin “A1” but do not remove.
Push the cover “1” ==> turn on the right “2” ==> take out the cover “3”

Fig. 3 MPH 660

2
Unscrew the screws and remove the cover.

Fig. 4 MPH 850

2
Unscrew the screws and remove the cover.

Fig. 1

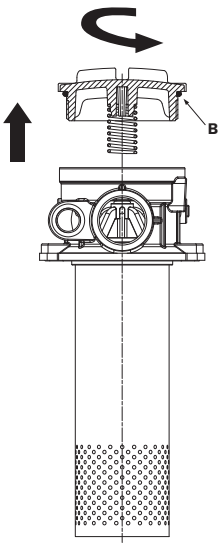


Fig. 2

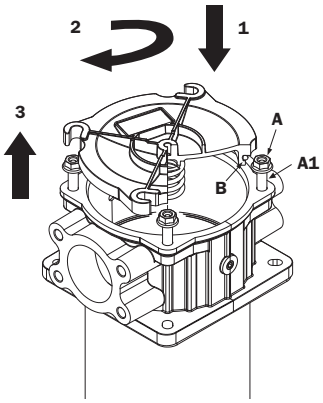


Fig. 3

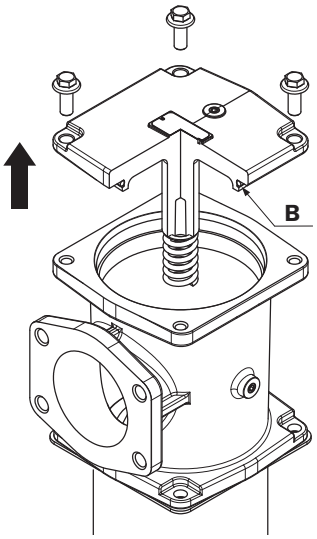
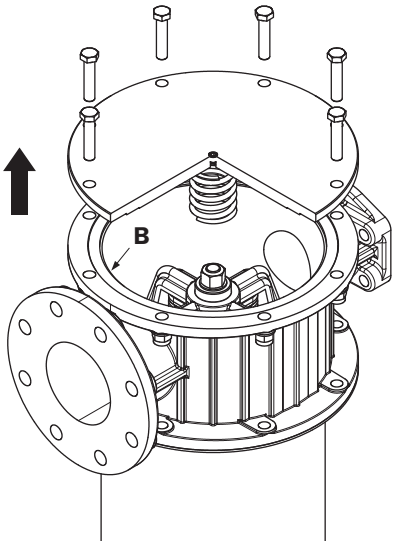


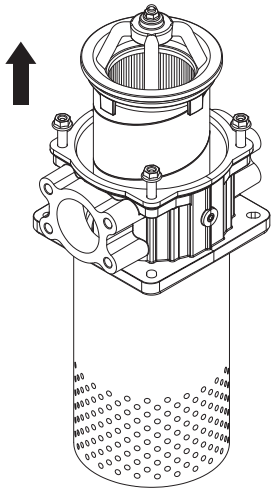
Fig. 4

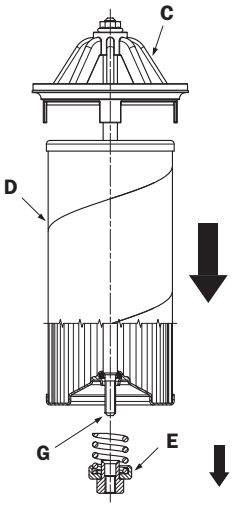


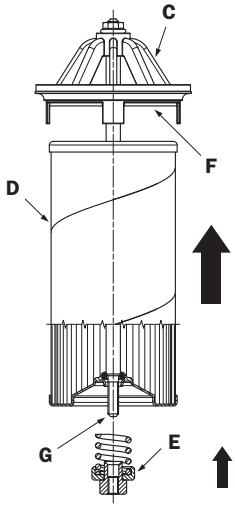
3
Take out insert assembly + filter element.

4
Unscrew and remove nuts + spring “E” from the threaded pin “G”.
-
Remove the filter element “D” from the insert assembly “C”.
-
Collect the spent oil and cartridge in a suitable container and dispose of them in compliance with statutory legislation.

5
Connect the filter element “D” to the insert assembly “C”.
-
Screw the nuts + spring “E” from the threaded pin “G”.

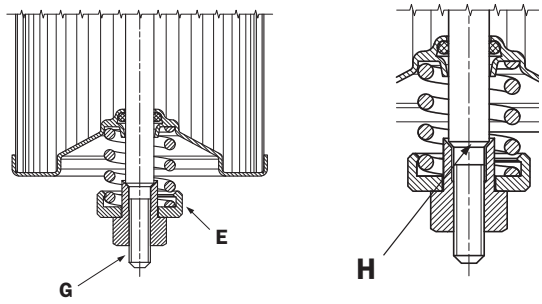






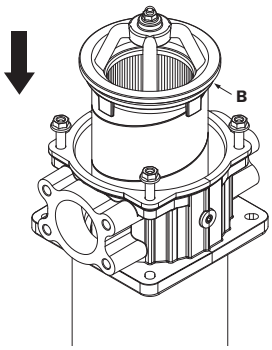
5a

Screw the nuts + spring “E” up to the contact with the chamfer on the threaded pin “G”.
Chamfer “H” of the threaded pin.



6

Check the condition of the stand seal “B”:
if renewing, lubricate the new seal with the operating fluid before installing.
Put in insert assembly and filter element.



7

Check the condition of the cover seal “B”:
if renewing, lubricate the new seal with the operating fluid before installing.

Fig. 1 **Fig. 2** **Fig. 3** **Fig. 4**

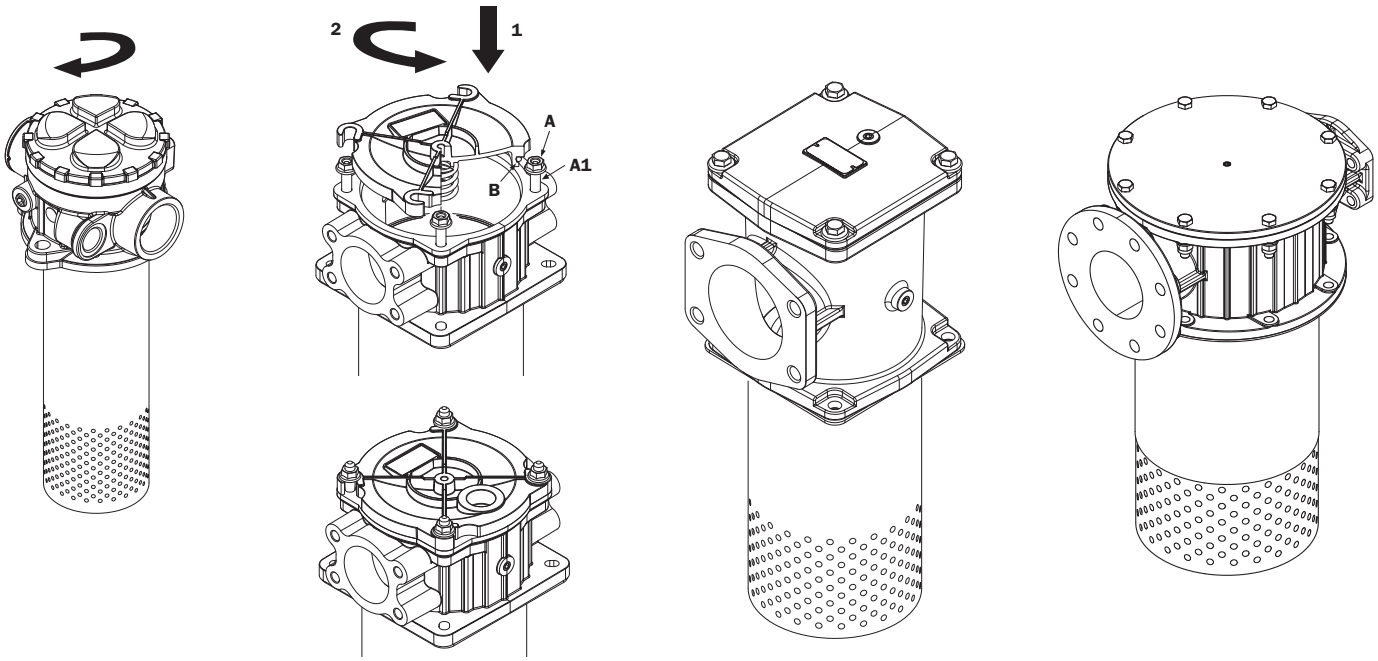


Fig. 1 MPH 104 - 110
MPH 114 - 120

8

Screw the cover.

Fig. 2 MPH 250 - 630

8

Push the cover “1” ==> turn to the left “2” ==> Screw the nuts “A” to the pin “A1”.

Fig. 3 MPH 660

8

Screw the screws of the cover.

Fig. 4 MPH 850

8

Screw the screws of the cover.

9

Start the machine and check for the absence of leaks.
Repeat the check when the machine has reached its operating temperature.

FOR MAINTENANCE FILTER MPI: See Item 3 - 4 - 5 - 5a - 6

CHANGING THE FILTER ELEMENT IN FRI FILTERS

1
Depressurise the system and clean the filter.

2
Unscrew the screws take out the cover.

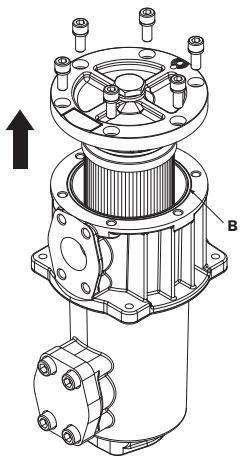


Fig. 1

3
Remove the filter element and cover from the body of the filter. Remove the filter element from the cover/by-pass valve.
Collect the spent oil and cartridge in a suitable container and dispose of them in compliance with statutory legislation.

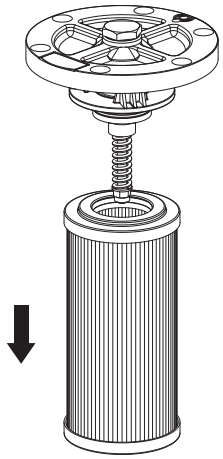


Fig. 2

4
Lubricate the filter element seal with the operating fluid.
Place the filter element on the cover/by-pass valve.

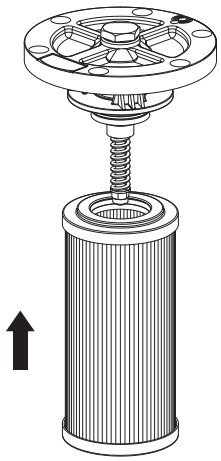


Fig. 3

5
Lubricate bottom seal of filter element with the operating fluid before installing.

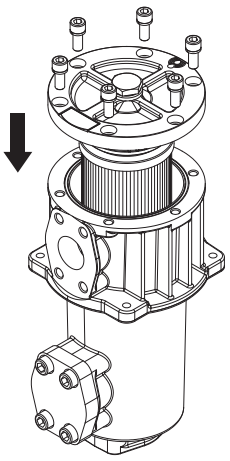


Fig. 4

6
Check the condition of the cover seal "B" (see Fig. 1):
if renewing, lubricate the new seal with the operating fluid before installing.

Screw the screws of the cover.

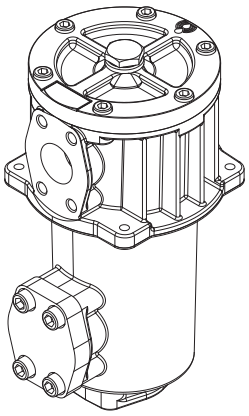


Fig. 5

7
Start the machine and check for the absence of leaks.
Repeat the check when the machine has reached its operating temperature.

CHANGING THE FILTER ELEMENT IN FRI 255 FILTERS

1
Depressurise the system and clean the filter.

2
Unscrew the cover.
Remove the cover and the filter element from the body of the filter.

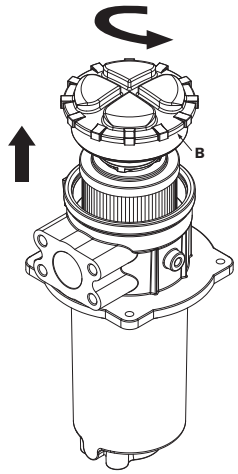


Fig. 1

3
Remove the filter element from the cover/by-pass valve.
Collect the spent oil and cartridge in a suitable container and dispose of them in compliance with statutory legislation.

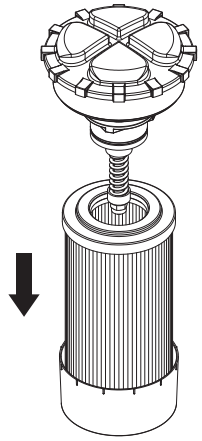


Fig. 2

4
Remove the contamination retainer binder from the filter element and clean.
Place the the retainer binder on the new filter element.

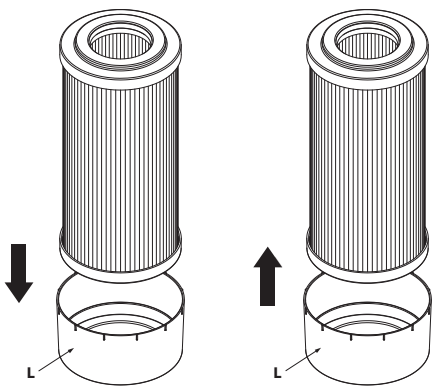


Fig. 3

5
Lubricate the filter element seal with the operating fluid.
Place the filter element on the cover/by-pass valve.

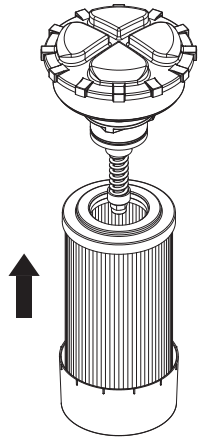


Fig. 4

6
Lubricate bottom seal of filter element with the operating fluid before installing.

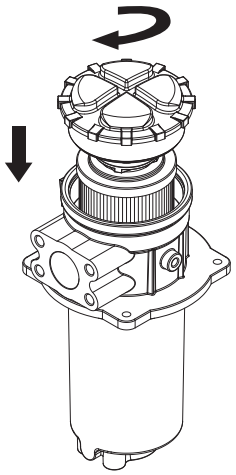


Fig. 5

7
Check the condition of the cover seal "B" (see Fig. 1):
if renewing, lubricate the new seal with the operating fluid before installing.

Screw the cover.

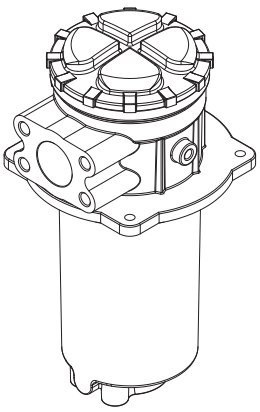


Fig. 6

8
Start the machine and check for the absence of leaks. Repeat the check when the machine has reached its operating temperature.

CHANGING THE FILTER ELEMENT IN RF2 250 - 350 FILTERS

1
Depressurise the system and clean the filter.

2
Unscrew the cover.
Collect the spent oil in a suitable container and dispose in compliance with statutory legislation.
Remove the cover and the filter element from the body of the filter.

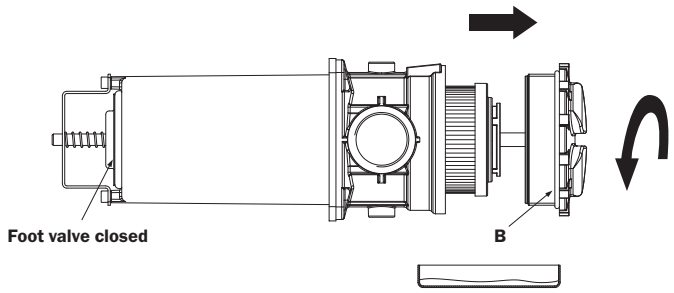


Fig. 1

3
Unscrew thread spigot “3” nut “2”, remove spigot, nut and support filter element “1”.
Remove the filter element from the cover/by-pass valve.
Collect the spent filter element in a suitable container and dispose of them in compliance with statutory legislation.

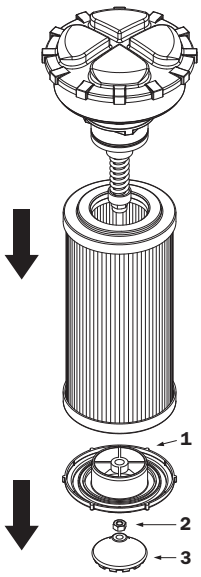


Fig. 2

4
Lubricate the filter element seals with the operating fluid.
Place the filter element on the cover/by-pass valve.
Fixed support element “1” and screw nut “2” and thread spigot “3”: hand tightening.

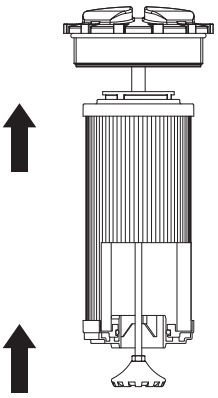


Fig. 3

5
Check the condition of the cover seal “B” (see Fig. 1):
if renewing, lubricate the new seal with the operating fluid before installing.

Screw the cover.

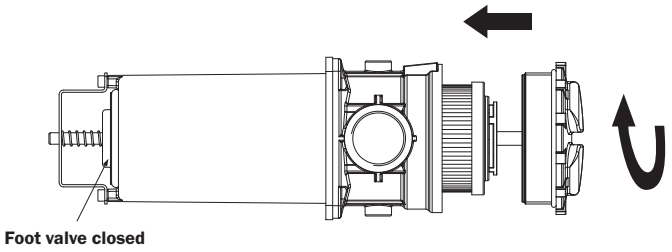


Fig. 4

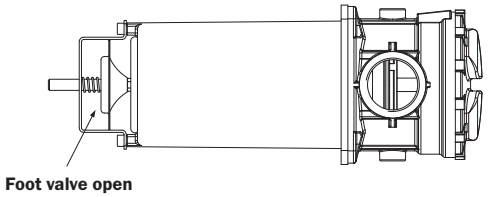
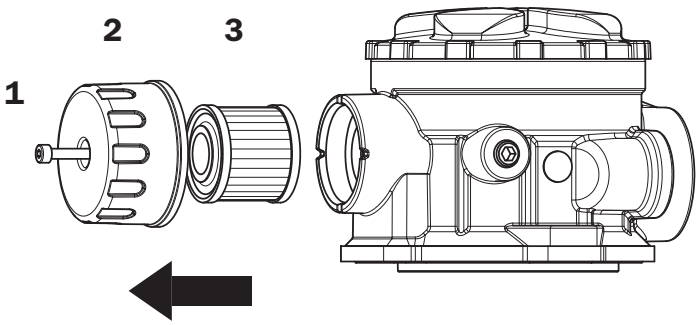


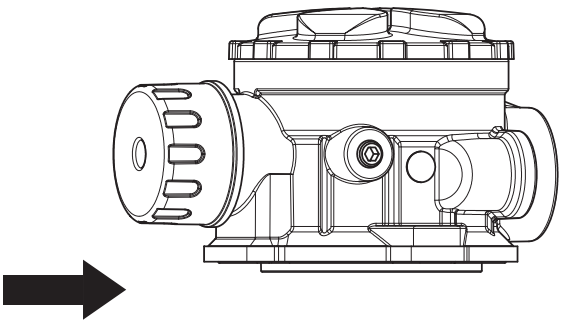
Fig. 5

6
Start the machine and check for the absence of leaks.
Repeat the check when the machine has reached its operating temperature.

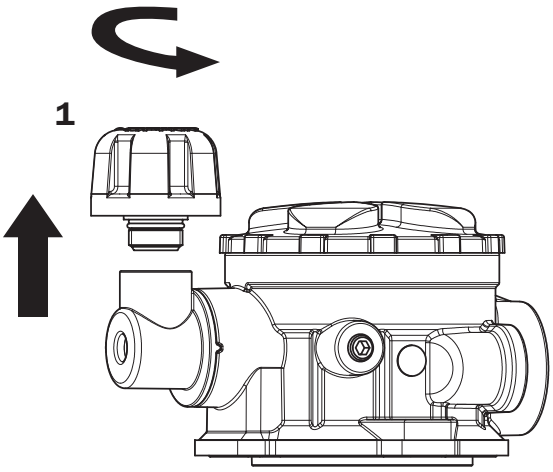
MAINTENANCE AIR BREATHER
MPT 025 - 027 - 110 - 114
MPH 110 - 114



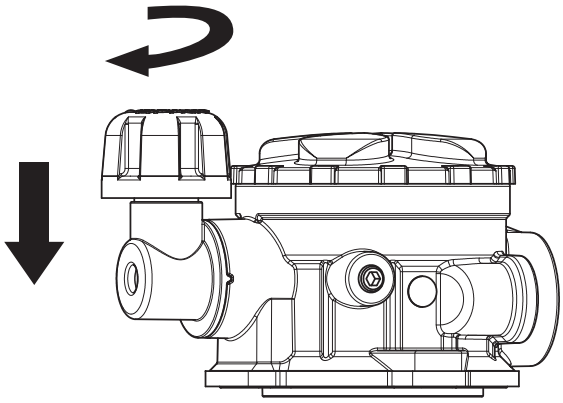
1
Unscrew the screw “1” remove the cover “2” and filter element “3”.



2
Assembling item “1” - “2” - “3”.



1
Unscrew air breather “1”.



2
Screw new air breather “1”.